

## **Historic, archived document**

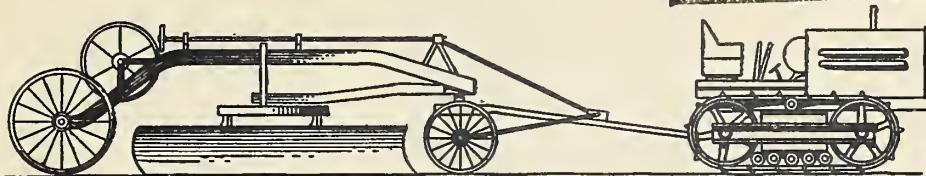
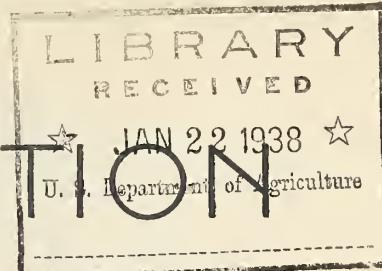
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Agri. Lib.

1/16th  
Reserve

# CONSTRUCTION



## HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE  
WASHINGTON, D.C.

Vol. 4

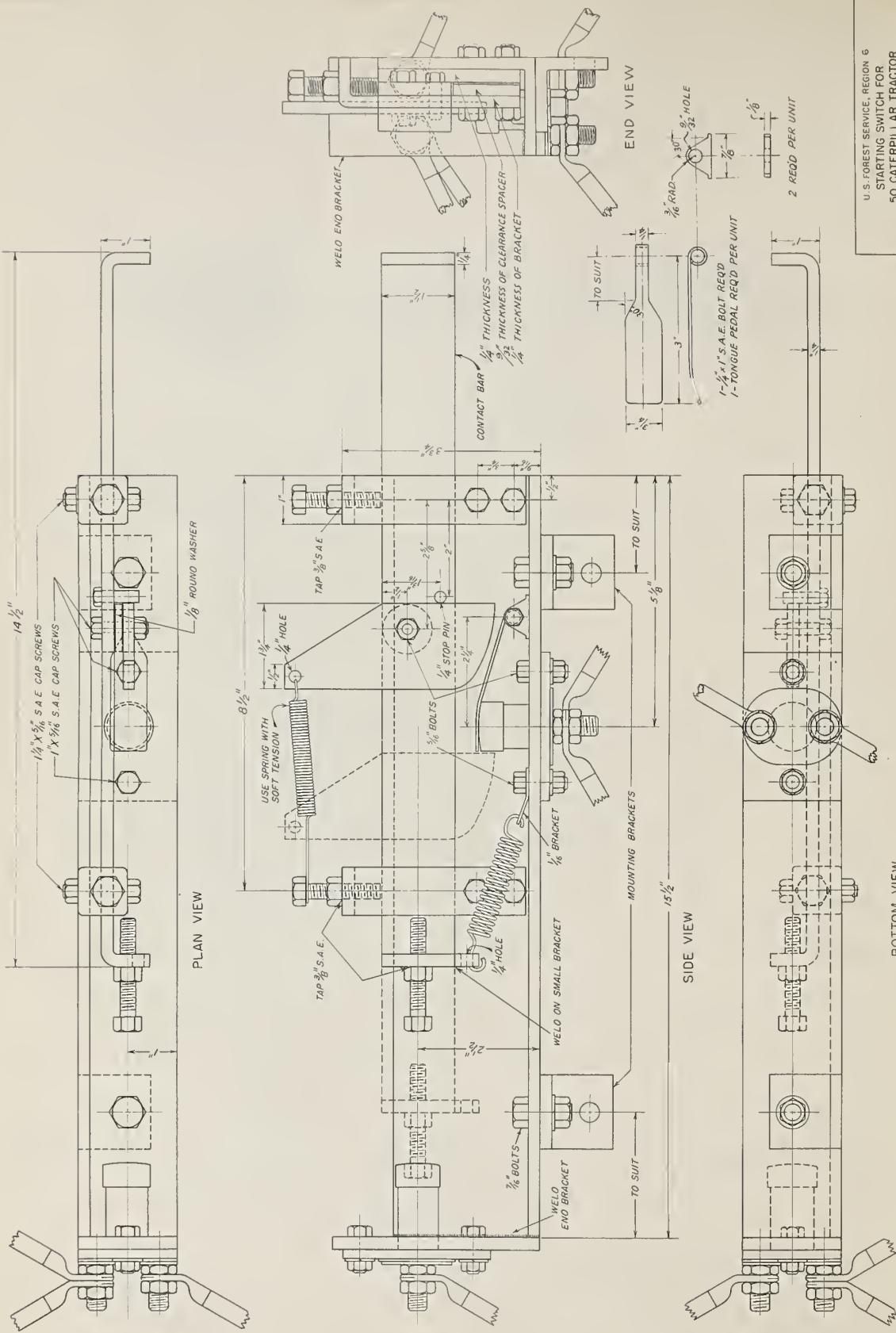
January 8, 1938.

No. 1

### SPECIAL STARTING SWITCH

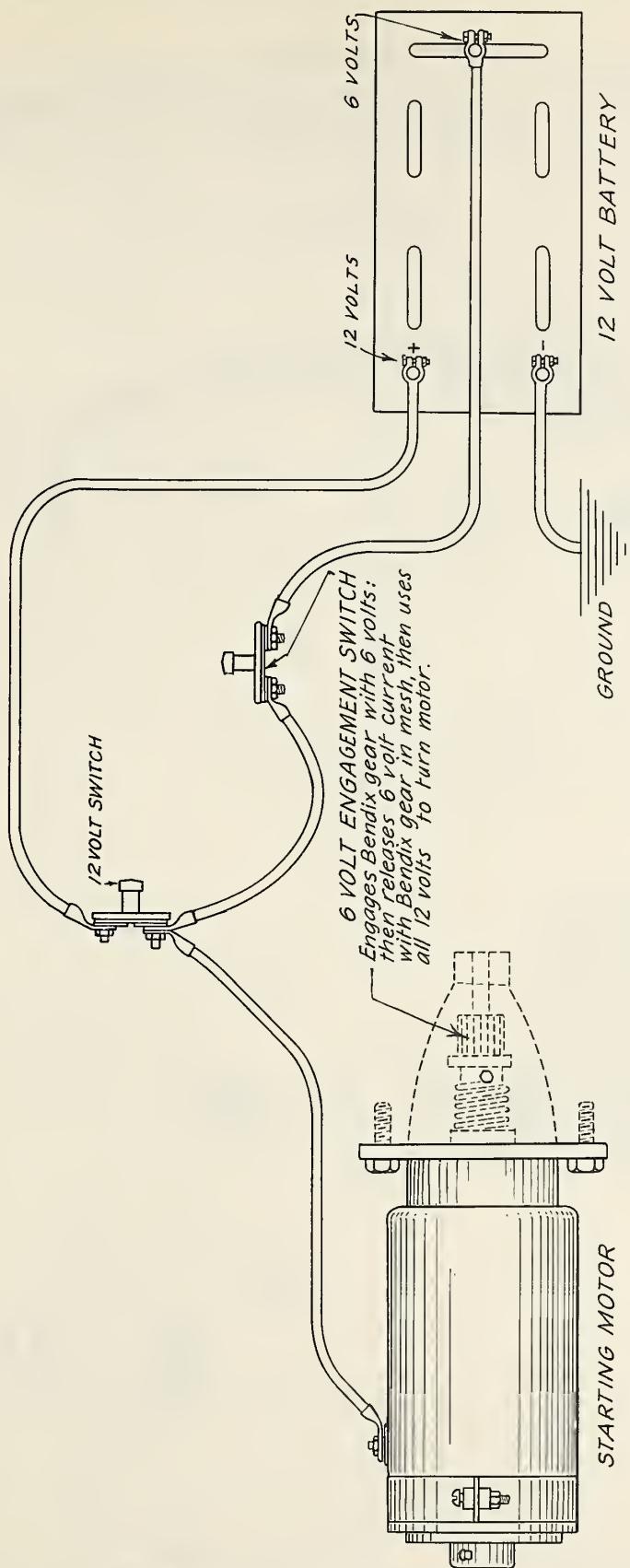
This idea might be described as a 2-stage switch, and its purpose is to eliminate the troubles which we have with the standard factory starter switch on all "50" Caterpillar tractors. The twelve-volt power of the factory switch is entirely too sudden and harsh, causing considerable jamming and breaking of the starter mechanism. This scheme permits starter engagement to be made more gently by using only six volts. Automatically, and immediately after engagement is made, the full twelve volts are applied to turn the motor over. The plan has been in use for about a year now and has proved very successful.

(over)

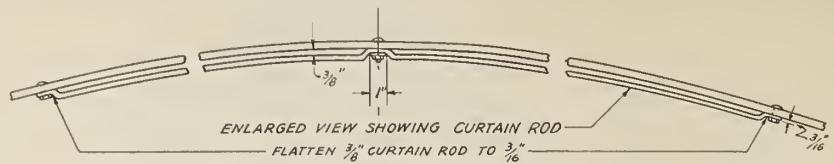


U. S. FOREST SERVICE, REGION 6  
STARTING SWITCH FOR  
50 CATERPILLAR TRACTOR  
WILLOWA NATIONAL FOREST, ENTERPRISE  
DESIGN BY L. WATERTMAN APPROVED BY [initials]  
DRAWN BY QWP, TRACED BY QWP, CHECKED  
RE-TRADED 1-5-49 9-28-37 PORTLAND  
IN WASH. OFFICE

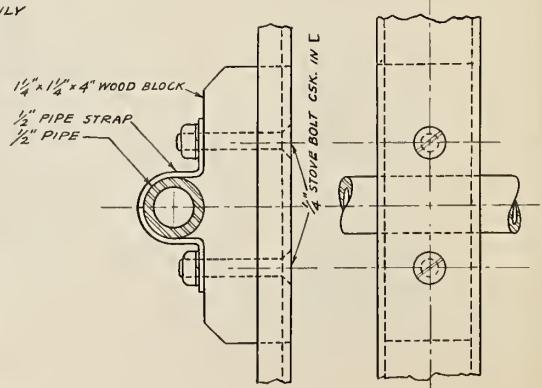
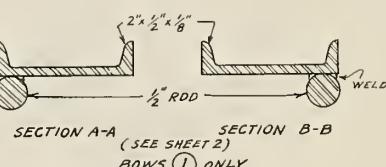
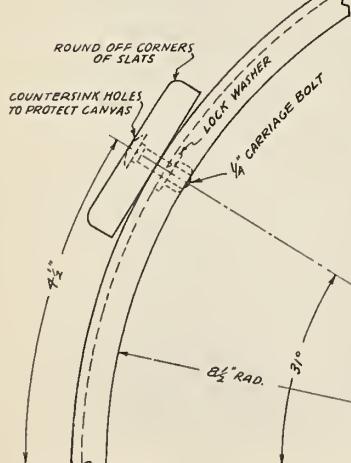
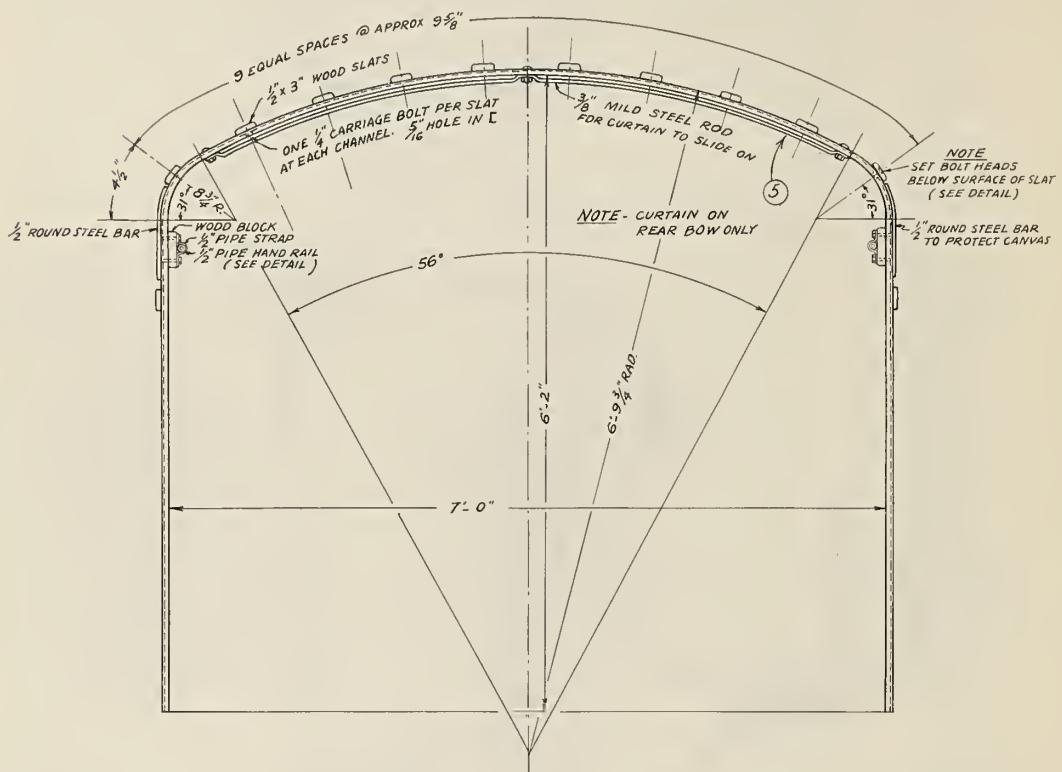
SHEET 1 OF 2 SHEETS

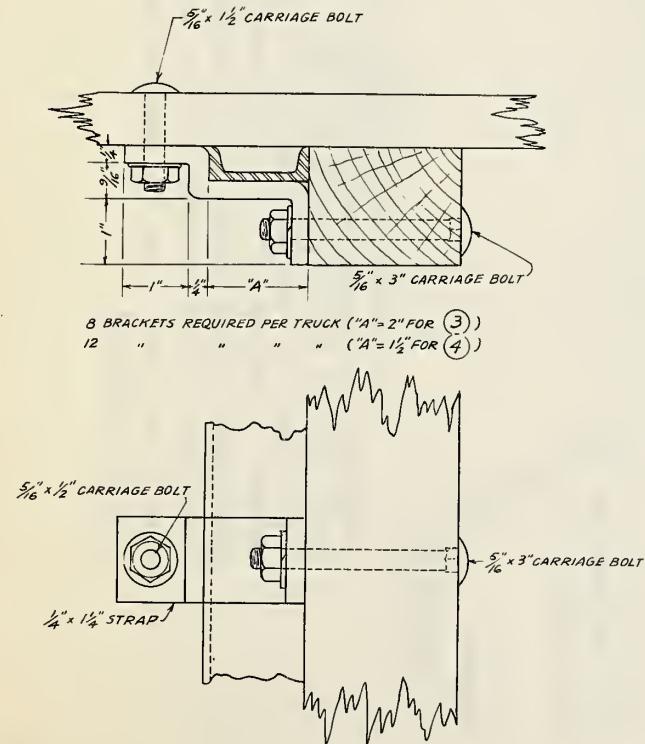
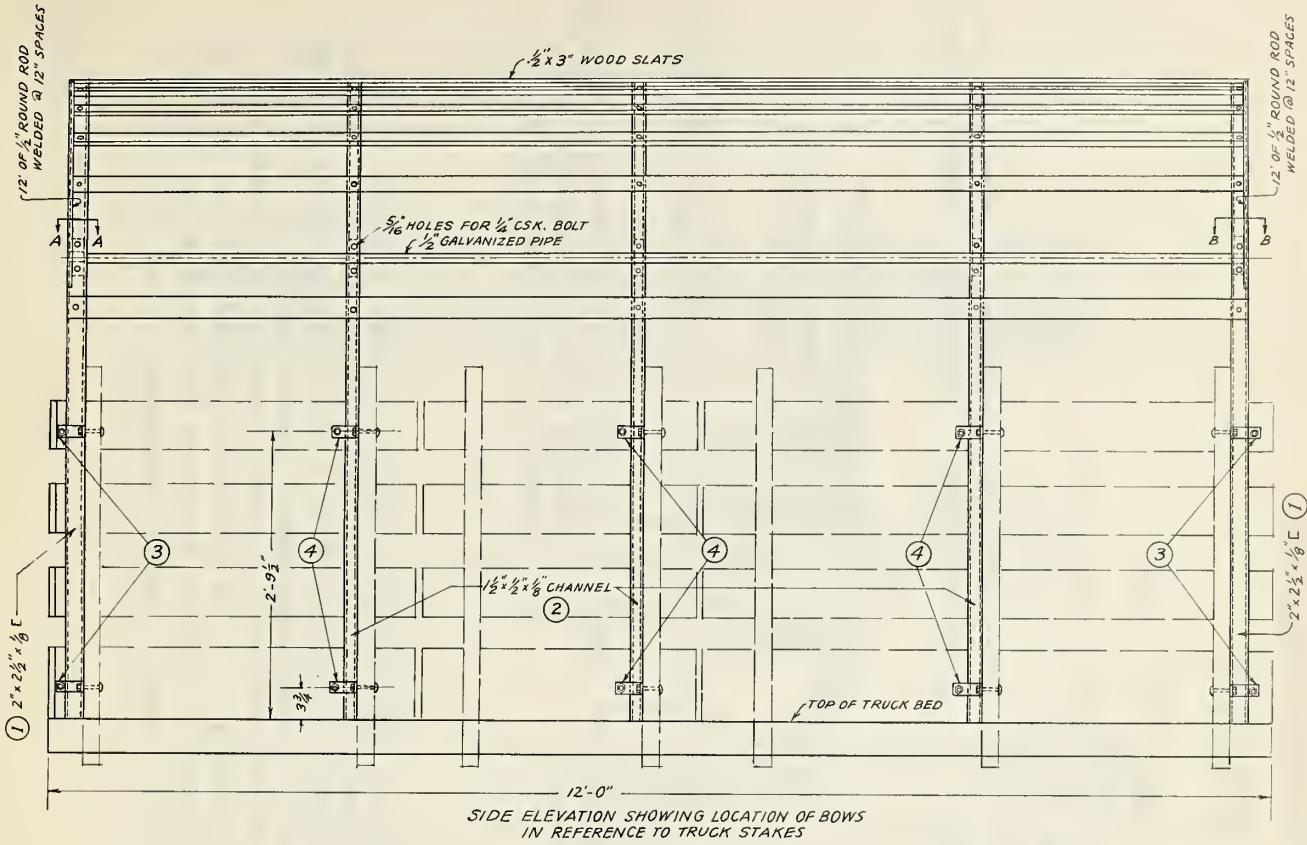


WIRING DIAGRAM  
OF STARTING SWITCH  
( SHEET 2 OF 2 SHEETS )



1 REQ'D. PER TRUCK  
 $\frac{3}{8} \times 7\frac{1}{4}$  M.S. ROD (5)



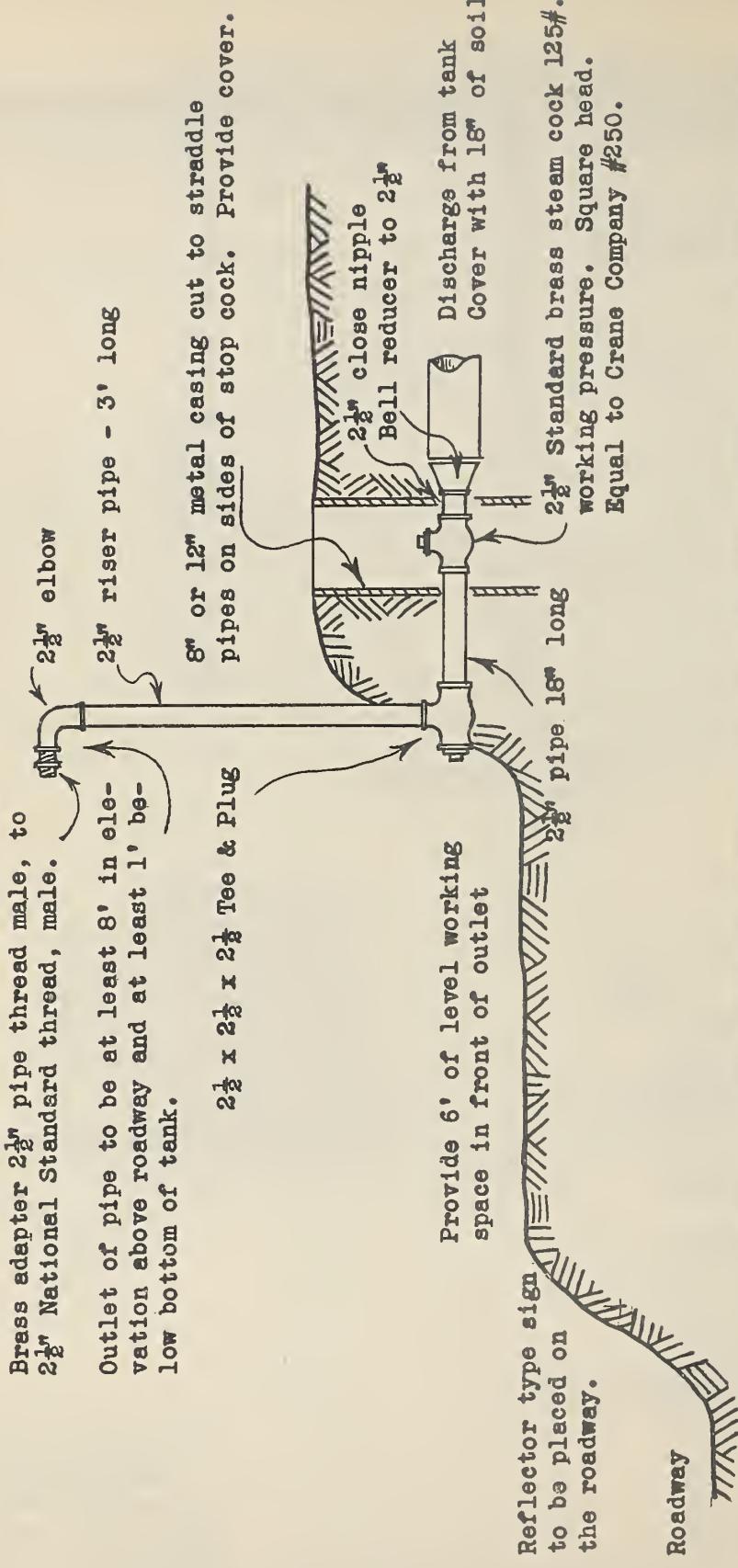


BILL OF MATERIAL

3 BOWS OF 1/2 x 1/2 x 1/8" CHANNEL  
2 BOWS OF 2" x 1/2 x 1/8" CHANNEL  
2 RODS, MILD STEEL, 3/8", WELDED TO OUTSIDE  
OF EACH OF THE 2" CHANNELS: - SEE DETAIL  
1 ROD, MILD STEEL, 3/8", FOR CURTAIN  
12 BRACKETS, 1/4" x 1/4" x 4" STRAP, FOR 1/2" BOWS  
8 BRACKETS, 1/4" x 1/4" x 4" STRAP, FOR 2" BOWS  
2 PIECES OF 1/2" GALV PIPE, 12' LONG, PLAIN ENDS  
10 PIPE STRAPS, (GALV) FOR 1/2" PIPE  
20 STOVE BOLTS, 5/16" x 2" WITH NUTS, FOR PIPE STRAPS  
60 STOVE BOLTS, 5/16" x 1" WITH NUTS, FOR WOOD SLATS  
3 CARRIAGE BOLTS, 5/16" x 1", WITH NUTS, FOR CURTAIN ROD  
12 SLATS OF FIR WOOD, 1/2" x 3" x 12'-0", S4S  
10 PIECES OF 1/2" x 1/4" x 4", NET, S4S, "FIR"  
20 CARRIAGE BOLTS, 5/16" x 3" WITH NUTS, FOR BRACKETS  
20 CARRIAGE BOLTS, 5/16" x 1/2" WITH NUTS, FOR BRACKETS  
80 LOCK WASHERS, FOR 5/16" STOVE BOLTS  
43 LOCK WASHERS, FOR 5/16" CARRIAGE BOLTS

## REVISED STANDARD FIRE OUTLET

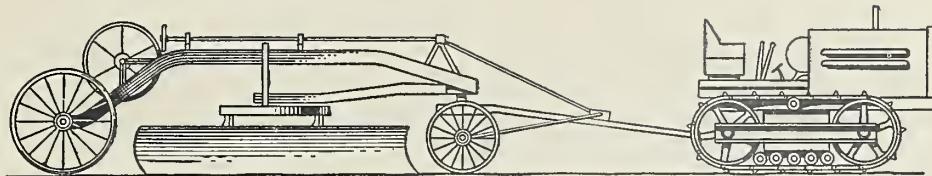
JANUARY 1937



On account of freezing temperatures and resultant damage to fire valves, it is necessary to provide approximately 18 inches of cover on all pipes unless drained. A brass stop cock is specified to act as a submerged valve rather than a regular gate valve, being less expensive and not subject to leakage. It will also make it unnecessary to lock the valves; however, all pumper trucks must be provided with a special wrench to operate the stop cock at the bottom of the protective casing. It is desirable that at the end of the fire season that the plug on the tee be loosened, thereby draining the stand pipe, but in case this is not done, no serious damage could result and if necessary, stand pipe can be cheaply replaced.

H. Fittinger  
January 1937

# CONSTRUCTION

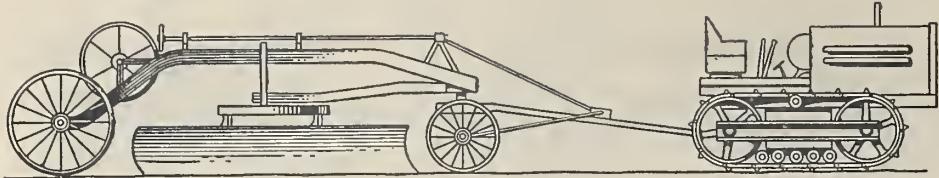


## HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE  
WASHINGTON, D.C.

1938 CALENDAR 1938					
<b>JANUARY</b>		<b>FEBRUARY</b>		<b>MARCH</b>	
S	M	T	W	T	F
1					
2	3	4	5	6	7
9	10	11	12	13	14
16	17	18	19	20	21
23	24	25	26	27	28
30	31	--	--	--	--
<b>APRIL</b>					
S	M	T	W	T	F
1	2				
3	4	5	6	7	8
10	11	12	13	14	15
17	18	19	20	21	22
24	25	26	27	28	29
30	31	--	--	--	--
<b>JULY</b>					
S	M	T	W	T	F
1	2				
3	4	5	6	7	8
10	11	12	13	14	15
17	18	19	20	21	22
24	25	26	27	28	29
31	--	--	--	--	--
<b>OCTOBER</b>					
S	M	T	W	T	F
1					
2	3	4	5	6	7
9	10	11	12	13	14
16	17	18	19	20	21
23	24	25	26	27	28
30	31	--	--	--	--
<b>NOVEMBER</b>					
S	M	T	W	T	F
1	2	3	4	5	6
13	14	15	16	17	18
20	21	22	23	24	25
27	28	29	30	--	--
<b>DECEMBER</b>					
S	M	T	W	T	F
1	2	3			
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11	12	13	14	15	16
18	19	20	21	22	23
25	26	27	28	29	30
31	--	--	--	--	--

# CONSTRUCTION



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UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE  
WASHINGTON, D.C.

1939 CALENDAR 1939						
<b>JANUARY</b>				<b>FEBRUARY</b>		
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
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<b>APRIL</b>				<b>MAY</b>		
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<b>JULY</b>				<b>AUGUST</b>		
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23	24	25	26	27	28	29
30	31	--	--	--	--	--
<b>OCTOBER</b>				<b>NOVEMBER</b>		
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	--	--	--	--
<b>MARCH</b>				<b>JUNE</b>		
S	M	T	W	T	F	S
--	--	--	--	--	--	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	--
<b>SEPTEMBER</b>				<b>DECEMBER</b>		
--	--	--	--	--	--	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
24	25	26	27	28	29	30
31	--	--	--	--	--	--
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	--